

Verizon's and Comcast's data caps: Who wins and who loses?

Comcast and Verizon Wireless each announced changes to their broadband data caps this week, but while Comcast is offering consumers more flexibility, Verizon's will likely result in higher prices.

Broadband data caps were a hot topic this week as Comcast and Verizon Wireless separately talked up upcoming changes to their policies. So how will these data cap tweaks affect consumers?

In short, Comcast's move, which increases its existing cap from 250GB to 300GB and now imposes an overage fee for those who exceed the cap, is likely a positive for its subscribers. Even the consumer advocates who typically hate the idea of data caps applauded the company for improving the policy. Meanwhile, Verizon's new plan, which will force existing subscribers "grandfathered" on its unlimited data plan into a tiered shared-data plan, will likely eventually lead to higher prices for wireless consumers.

Let's look at Comcast's policy change first. The cable operator

said on Thursday that it will no longer cut off users who exceed 250GB of data usage per month. Instead, the company is testing a new policy in which it will increase the usage cap to 300GB of data per month. And for those who do go over the cap, the company will charge an additional \$10 per 50GB of usage. David Cohen, executive vice president for Comcast, said the company has no intention to raise prices on its existing tiers of service. On a conference call with reporters after the announcement, he said that the new policy was meant to free its users from the worry of having their service cut off.

"We didn't like the message that we were giving our customers with the static 250GB cap," he said. "Now, we are sending a signal to our customers that we want them to use our broadband service and to feel free to use it for all lawful purposes. We want them to subscribe to Netflix and stream YouTube and use Skype to their heart's content without worrying about hitting some artificial data cap that results in them losing their service."

The reality is that Comcast's cap, even at 250GB, was more than generous for the majority of its broadband customers. According to Sandvine, a company that makes network management tools used by cable operators, only about 1.5 percent of U.S. broadband households use more than 250GB of data per month. And only about 1 percent exceed 300GB. On average, broadband users in the U.S. use about 32GB of data per month.

For the vast majority of Comcast's customers, this change in policy means nothing, since most will never even get close to reaching the 300GB cap. Comcast's executives wouldn't admit it, but the move was an attempt to quiet accusations that the cable operator is violating promises it made to regulators in order to merge with NBC Universal that it wouldn't favor its own content over competitors.

Earlier this year Comcast began offering a service that streams its Xfinity video content to [Xbox](#) gaming consoles over its broadband network. Unlike the Web portal or the mobile app for Xfinity, the service with the Xbox will not count against a person's monthly usage. Other streaming-video companies,

including Netflix, have cried foul. Netflix believes Comcast's treatment of its own content is discriminatory and violates the deal Comcast made with the FCC and also violates the spirit of the Net neutrality regulations that the agency recently put in place.

Comcast says it's not violating the conditions of its merger nor is it violating the FCC's regulations, because the content it's streaming is not over the public Internet.

This notion of whether or not Comcast has violated Net neutrality rules or promises to the regulators is another issue entirely. And perhaps the company's pro-consumer move to increase its cap to 300GB and suspend the 250GB cap while it's testing the new policy is simply a good-will gesture to distract from this other issue. In any case, what Comcast did this week was a good thing for consumers.

The cost of Verizon's change □

Meanwhile, I think Verizon's plan to move customers off unlimited data and onto shared plans will likely result in higher prices for consumers. On Wednesday, Verizon's chief financial officer, Fran Shammo, said at a JP Morgan investor conference that the company would be migrating its existing unlimited-data smartphone customers to a new tiered offering that will allow families to share data among individuals as well as add other connected devices to their accounts. He didn't offer details about the plan or how the company will get customers to give up their unlimited data plans. But he said that as customers upgrade to 4G LTE devices, Verizon will require them to go onto a tiered share plan.

For some consumers, a shared-data plan may actually save them money, depending on how Verizon prices the service. Most smartphone users in the U.S. are using less than 1GB of data per month anyway. So most subscribers on Verizon's unlimited data plan are overpaying for service anyway. But I'm not confident that Verizon will come up with plans that serve customers any better than the unlimited plans.

Judging by Shammo's comments, Verizon expects subscribers to use more data and have to upgrade to higher tiers of service.

But if they had been able to keep their unlimited-data plans, these customers would have been able to consume more for the same flat rate.

"I think revenue ARPU [average revenue per user] will continue to grow as we get into data share plans and people start to connect more devices [on the network]," Shammo said, according to the transcript of the event. "As they add more devices, they are going to have to buy up into tiers. So again, you will see the revenue increase there."

It makes perfect sense that Verizon would want to get away from the flat-rate, all-you-can eat pricing of its data service. Unlike traditional broadband, wireless operators don't sell different tiers of wireless Internet access based on speed. Instead, when data was introduced, they charged a flat fee to encourage more usage. Subscribers got whatever speed they could get, and they were allowed to consume as much data as they liked.

By contrast, cable and DSL service providers offer different levels of services. Slower-speed services cost less money, while higher speeds cost more. Users are still able to use as much data as they like, but if they plan to watch a lot of streaming video or back up very large files, they will either suffer through lots of buffering and long waits or they'll pay for a higher level of service so that the speed of the network is faster.

For Verizon and the other wireless carriers moving to these data caps, creating tiers of service based on usage is a way to make more money over the life of a customer. And the side benefit is that they also curb extremely heavy usage, which can be a problem for both wireless and wired broadband networks.

"The sad reality is that while it's a great market penetration strategy, unlimited data is simply not a sustainable economic model," said Guy Rosen, CEO of Onavo, a wireless application that helps people control data usage. "Supply is limited by the laws of physics and demand is simply exploding. Verizon's statement adds to AT&T's throttling debacle of earlier this year, ushering us into a future where all data has a price tag. It's now clear that operators will find any loophole they can to eradicate grandfathered unlimited contracts."

A deluge of data traffic □

Comcast and Verizon Wireless are dealing with a deluge of Internet traffic on their networks. Data usage on wired and wireless networks is exploding. Cisco Systems has predicted that worldwide Internet traffic will increase fourfold between 2010 and 2015. The company's networking index, which looks at the growth of Internet traffic each year, forecasts global traffic will be 80.5 exabytes per month during this period, which is equivalent to 17 billion DVDs worth of traffic. In 2010, the world saw about 20.2 exabytes of data transmitted over the Internet per month. Much of the growth in Internet traffic is coming from people streaming more video, particularly high-definition video. Services like Netflix, Hulu, and Youtube account for huge amounts of traffic on the network. And this traffic is only expected to increase as these services and others grow in popularity.

The trend is also moving to mobile. And it's driving usage there as well. In fact, Cisco anticipates that global mobile traffic will actually outgrow fixed data traffic by three times between 2011 and 2016. In addition to the increase in mobile video, Cisco also attributes this trend to other streaming content, like music.

What's more, there will simply be more Internet-enabled devices in the market in the coming years. By 2016, there will be 10 billion mobile Internet-connected devices, which exceeds the world's projected population at that time of 7.3 billion.

What this means for service providers such as Comcast and Verizon is that they have to deal with a tsunami of data traffic on their networks. Wireless and wired broadband providers have been upgrading their networks to keep up with demand.

Comcast has just upgraded its network to the Docsis 3.0 standard, supercharging its network with even higher speeds and more capacity. And Verizon Wireless is leading the world in terms of its 4G LTE deployment, which will use wireless spectrum more efficiently and provide faster speed connections and more network capacity.

Even with these upgrades, these companies say they need to control and manage traffic on their networks. While there are differences between wireless and cable broadband networks in

terms of how much traffic they can actually handle, the one thing the two have in common is that the network capacity is shared among the users in geographic areas. This means that a few users running huge back-ups on their home computers can hose an entire neighborhood's cable broadband service. And a few users streaming HD video all at the same time in the same cell site can cause super slow connection speeds for everyone else in the area.

While it's clear that consumers are likely to see more data caps in the future both on their wireless and wired broadband connections, the question is how companies will implement them. Harold Feld, legal director for the public policy watchdog group Public Knowledge, commended Comcast for taking a step toward offering more flexibility in its usage cap. But he also warned that even though Verizon's plan will also increase flexibility, it will also likely result in higher prices for consumers. He called on regulators to take a closer look at these data caps. "The Federal Communications Commission and Congress should find out how those caps are set, how they are evaluated and what purpose they serve," he said. "In the very limited and potentially even more limited digital marketplace, and in light of the importance of broadband to our national economy, the answers to these questions are essential."